

EXPRESS MAIL LABEL  
No. EL 461065 US

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HEAD ASSEMBLY FOR A CUTTING MACHINE

CROSS REFERENCE TO RELATED APPLICATION

This is a divisional of United States Application No. 09/541,000, filed March 31, 2000 and now issued as United States Patent No. 6,234,052, which was in turn a divisional of United States Application No. 09/151,179 filed September 10, 1998, and now issued as United States Patent No. 6,178,860. The entire specification of the aforesaid applications and patents are hereby incorporated hereunto by reference thereto.

21 Jun 04

BACKGROUND OF THE INVENTION

Automated systems for cutting mat board and the like, which operate under computer control (CNC matcutters), are known in the art and are commercially available. (See for example the article entitled "Computerized Automated Matcutters" by Robert Palmer, *PFM Magazine*, May 1995, pages 66-86.) The cutting head employed in such apparatus typically has an associated glide plate that surrounds the tip of the blade, which facilitates movement over the board and improves cutting.

A difficulty that arises due to the presence of such a glide plate concerns interference with elements used for clamping the workpiece in place against the machine table. The clamping elements not only limit the closeness of approach of the blade to the edge of the board, and consequently border width, but they also preclude sizing (i.e., cutting of a smaller piece of mat board from a larger one) because the blade cannot move all the way to the edge of the workpiece.

Other deficiencies that are typically present in matcutters of the prior art concern operation of the head itself. For example, the motion of the head components by which blade plunging is effected is often not sufficiently smooth and well-controlled to enable the production of optimal cuts, and the construction often does not afford facile and precise relative positioning of the parts comprising the head.

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